

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-3. (Canceled)

4. (Currently Amended) A highly-viscous-fluid applying apparatus comprising:

a fluid supply device operable to supply a highly viscous fluid;

a delivery nozzle from which the highly viscous fluid is delivered;

a screw pump disposed between said fluid supply device and said delivery nozzle, and
~~operable to feed the highly viscous fluid received from the fluid supply device, to said~~
~~delivery nozzle, said screw pump including a stationary screw that is non-rotatable, and a~~
~~rotatable pump housing having a screw chamber having of a circular shape in transverse cross~~
~~section, said screw rotatable pump housing accommodating further including a said stationary~~
~~screw which is substantially fluid-tightly disposed within said pump housing such that and~~
~~being rotatable about an axis of said stationary screw, said screw and said pump housing are~~
~~rotatable relative to each other being operable to deliver the highly viscous fluid received~~
~~from said fluid supply device, from said delivery nozzle, by rotation of said rotatable pump~~
~~housing about the axis of said stationary screw; and~~

a pump control device including a pump drive device operable to rotate said ~~rotatable~~
~~pump housing relative to about the axis of said stationary screw to deliver said highly viscous~~
~~fluid from said delivery nozzle,~~

~~and wherein said screw is stationary, while said pump control device controls said~~
~~pump drive device such that said pump housing is rotated about said screw, by said pump~~
~~drive device, to deliver the highly viscous fluid from said delivery nozzle, while said screw is~~
~~held stationary.~~

5. (Previously Presented) A highly-viscous-fluid applying apparatus according to claim 4, wherein said delivery nozzle extends from one end of said screw pump, coaxially with said screw pump.

6. (Previously Presented) A highly-viscous-fluid applying apparatus according to claim 4, wherein said fluid supply device is a fluid supply device of a pressurizing type arranged to pressurize the highly viscous fluid and feed the pressurized highly viscous fluid to said screw pump.

7. (Original) A highly-viscous-fluid applying apparatus according to claim 6, wherein said fluid supply device of the pressurizing type includes:

a container accommodating a mass of the highly viscous fluid;
a compressed-air supply device operable to introduce a compressed air into an upper air chamber in said container; and
a supply passage connecting a lower end of said container and a first end portion of said screw pump opposite to a second end portion of said screw pump from which said delivery nozzle extends.

8. (Canceled)

9. (Currently Amended) A highly-viscous-fluid applying apparatus according to claim 4, wherein said fluid supply device includes a stationary container for accommodating a mass of the highly viscous fluid, said stationary container including a supply portion having an opening from which the highly viscous fluid is supplied, and said stationary screw is fixed to and coaxial with said supply portion of said stationary container.

10. (Currently Amended) A highly-viscous-fluid applying apparatus according to claim 9 11, wherein said supply portion of said container consists of a cylindrical portion extending from one end a body of said stationary container, and said stationary screw is fixedly fitted at a proximal end thereof in a first part of said cylindrical portion, said opening

being formed through a second part of said cylindrical portion which is located nearer to said body than said first part.

11. (Currently Amended) A highly-viscous-fluid applying apparatus ~~according to~~ ~~claim 9, further comprising:~~

a fluid supply device operable to supply a highly viscous fluid;

a delivery nozzle from which the highly viscous fluid is delivered;

a screw pump disposed between said fluid supply device and said deliver nozzle, and
including a stationary screw that is non-rotatable, and a rotatable pump housing having a
screw chamber of a circular shape in transverse cross section, said rotatable pump housing
accommodating said stationary screw substantially fluid-tightly and being rotatable about an
axis of said stationary screw, said screw pump being operable to deliver the highly viscous
fluid received from said fluid supply device, from said delivery nozzle, by rotation of said
rotatable pump housing about the axis of said stationary screw;

a pump control device including a pump drive device operable to rotate said rotatable
pump housing about the axis of said stationary screw, to deliver said highly viscous fluid
from said delivery nozzle; and

a machine frame,

wherein said fluid supply device includes a stationary container for accommodating a
mass of the highly viscous fluid, said stationary container including a supply portion having
an opening from which the highly viscous fluid is supplied, said stationary screw being fixed
to and coaxial with said supply portion of said stationary container,

and wherein said rotatable pump housing is held by the machine frame such that said
pump housing is rotatable rotatably and is not axially movable immovably relative to said
machine frame, and said stationary container is removably mounted on said machine frame,
such that said stationary screw is being fitted into said rotatable pump housing when as said

stationary container is mounted on the machine frame, and ~~is~~ removed from the rotatable pump housing ~~when as~~ the stationary container is removed from the machine frame.

12. (Currently Amended) A highly-viscous-fluid applying apparatus according to claim 9 11, further comprising ~~a machine frame and~~ a nozzle holding member mounted on the machine frame, and wherein said delivery nozzle is rotatably held by said nozzle holding member.

13. (Currently Amended) A highly-viscous-fluid applying apparatus according to claim 9 11, further comprising a machine frame, and wherein said rotatable pump housing and said delivery nozzle are rotatably held by the machine frame, and said rotatable pump housing is rotatably fitted in said delivery nozzle.

14. (Currently Amended) A highly-viscous-fluid applying apparatus according to claim 12, further comprising a nozzle rotating device operable to rotate said delivery nozzle relative to said stationary container and said machine frame.

15. (Previously Presented) A highly-viscous-fluid applying apparatus according to claim 4, further comprising a delivery-amount detecting device operable to detect an amount of delivery of the highly viscous fluid from said delivery nozzle onto an object, and said pump control device controls said pump drive device such that the amount of delivery of the highly viscous fluid detected by said delivery-amount detecting device is adjusted to a desired value.

16. (Previously Presented) A highly-viscous-fluid applying apparatus according to claim 4, further comprising a gap-defining portion which is disposed so as to extend in a direction of extension of the delivery nozzle, in the vicinity of the delivery nozzle as seen in a direction perpendicular to said direction of extension, such that a free end of said gap-defining portion is located ahead of a free end of the delivery nozzle in said direction of extension and such that said gap-defining portion is moved with the delivery nozzle in said

direction of extension, for abutting contact with a working surface of an object, to maintain a predetermined gap between said free end of said gap-defining portion and said working surface.

17. (Original) A highly-viscous-fluid applying apparatus according to claim 16, further comprising a machine frame, a biasing device and a stopper device, and wherein at least said delivery nozzle and said gap-defining portion are movable relative to said machine frame in an axial direction of said delivery nozzle, and are biased by said biasing device in said axial direction from a proximal end toward a delivery end of said delivery nozzle, said gap-defining portion and said delivery nozzle being normally held under a biasing action of said biasing device, at respective positions which are determined by said stopper device.

18. (Canceled)

19. (Previously Presented) A highly-viscous-fluid applying apparatus according to claim 4, further comprising a temperature control device operable to control a temperature of a mass of the highly viscous fluid, at least at a portion of the mass which is moved through said delivery nozzle for delivery thereof onto an object.

20. (Currently Amended) A highly-viscous-fluid applying apparatus according to claim 19, wherein said temperature control device has:

a gas passage through which a gas is circulated for heat transfer between said gap and a portion of said rotatable pump housing which surrounds said stationary screw; and
a gas-temperature control device operable to control a temperature of said gas is circulated through said gas passage.

21. (Previously Presented) A highly-viscous-fluid applying apparatus according to claim 4, wherein said delivery nozzle has a plurality of delivery tubes parallel to each other.

22. (Original) A highly-viscous-fluid applying apparatus according to claim 21, further comprising a nozzle rotating device operable to rotate said delivery nozzle about an axis thereof which is parallel to said plurality of delivery tubes.

23. (Original) A highly-viscous-fluid applying apparatus according to claim 22, further comprising a controller operable to control said nozzle rotating device according to a predetermined control program.

24. (Previously Presented) A highly-viscous-fluid applying apparatus according to claim 4, further comprising a support member which supports at least said delivery nozzle and said screw pump, and a relative-movement device operable to move said support member and an object relative to each other in a direction parallel to a working surface of said object on which the highly viscous fluid is delivered from said delivery nozzle, and in a direction perpendicular to said working surface.

25. (Previously Presented) A highly-viscous-fluid applying apparatus according to claim 4, wherein said fluid supply device is a fluid supply device of a pressurizing type arranged to pressurize the highly viscous fluid and feed the pressurized highly viscous fluid to said screw pump, said apparatus further comprising a synchronous controller operable to operate said fluid supply device of the pressurizing type, in synchronization with an operation of said screw pump under the control of said pump control device.

26. (Currently Amended) A highly-viscous-fluid applying apparatus ~~comprising:~~ according to claim 4,

~~— a fluid supply device operable to supply a highly viscous fluid;~~
~~— a delivery nozzle from which the high viscous fluid is delivered;~~
~~— a pump disposed between said fluid supply device and said delivery nozzle, and~~
~~operable to feed the highly viscous fluid received from the fluid supply device, to said~~
~~delivery nozzle; and~~

~~a pump control device operable to control said pump, for controlling an amount of delivery of said highly viscous fluid to be delivered from said delivery nozzle,~~
and wherein said pump control device includes a reverse-operating portion operable to operate said pump by a predetermined amount in a reverse direction opposite to a forward direction after termination of an operation of said pump in said forward direction to feed the highly viscous fluid to said delivery nozzle.

27. (New) A highly-viscous-fluid applying apparatus according to claim 9, wherein said stationary container further includes a body portion coaxial with said supply portion and said stationary screw of said screw pump.

28. (New) A highly-viscous-fluid applying apparatus according to claim 11, wherein said stationary container further includes a body portion coaxial with said supply portion and said stationary screw of said screw pump.